

**ABSTRACT OF THE DISCLOSURE****THERAPEUTIC PLATELETS AND METHODS**

A method for loading a preservative into blood platelets comprising providing a preservative solution having a preservative, water and protein, and loading blood platelets with the preservative solution to produce preservative-loaded blood platelets having the preservative solution generally including higher glass transition temperatures than glass transition temperatures for a preservative solution having the preservative, water and no protein. A process for processing blood platelets comprising suspending blood platelets in a preservative solution at a concentration greater than about  $10^8$  platelets per ml. of preservative solution to produce preservative-loaded blood platelets, freeze-drying the preservative-loaded blood platelets, and recovering at least 75% of the freeze-dried platelets. A platelet composition comprising blood platelets loaded with a preservative solution having a preservative, water, and protein, and generally further having higher glass transition temperatures than glass transition temperatures for blood platelets loaded with the preservative, water, but no protein.